

CORRECTED VERSION

(19) World Intellectual Property Organization
International Bureau



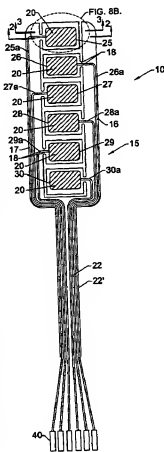
(43) International Publication Date
21 September 2000 (21.09.2000)

PCT

(10) International Publication Number
WO 00/54897 A3

- (51) International Patent Classification: B06B 1/06, A61B 7/04
(21) International Application Number: PCT/US00/05124
(22) International Filing Date: 29 February 2000 (29.02.2000)
(25) Filing Language: English
(26) Publication Language: English
(30) Priority Data:
60/122,264 1 March 1999 (01.03.1999) US
60/132,041 30 April 1999 (30.04.1999) US
(71) Applicant (for all designated States except US): MEDA-COUSTICS, INC. (US/US); Suite 114, 5540 Centerview Drive, Raleigh, NC 27606 (US).
(72) Inventors; and
(75) Inventors/Applicants (for US only): SLEVA, Michael, Z. [US/US]; 6608 Rocky Falls Road, Charlotte, NC 28211 (US). EBERHARDT, Allen [US/US]; 624 Marlowe Road, Raleigh, NC 27609 (US). SWANSON, Cal [US/US]; 1626 Shepherds Glade Drive, Apex, NC 27502 (US). TRIOLO, Richard [US/US]; 6021 Apt. E Shadowtree Lane, Raleigh, NC 27613 (US). LEWANDOWSKI, Simon [US/US]; 6313 Lynn Meadow Drive, Raleigh, NC 27609 (US).
(74) Agents: RICHARDSON, Julie, H. et al.; Myers, Bigel, Sibley & Sajovec, P.A., P.O. Box 37428, Raleigh, NC 27627 (US).
(81) Designated States (national): AE, AL, AM, AT, AT (utility model), AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, CZ (utility model), DE, DE (utility model), DK, [Continued on next page]

(54) Title: LOW PROFILE ACOUSTIC SENSOR ARRAY AND SENSORS WITH PLEATED TRANSMISSION LINES AND RELATED METHODS



(57) Abstract: A low profile acoustic array (10) is configured to selectively respond to shear waves while rejecting compression wave energy in the frequency range of interest. One sensor array is configured as a linear strip with a frame segment having at least one longitudinally extending rail and a plurality of sensor elements (10) extending therefrom. These sensor elements have a resilient core and opposing PDVF outer layers configured with opposing polarities onto the core. The linear strip array also includes a pair of separate electrical signal transmission paths. The transmission lines can include a series of undulations formed thereon to help minimize undesired mechanical crossover between sensors. A carrier member can be configured to be detachably releasable carries the discrete sensors to maintain the positional alignment until they are secured to a patient.

WO 00/54897 A3